AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A heat pipe comprising a condensable, liquid phase working fluid encapsulated in a container sealed in an air-tight condition and a wick provided in the container composed of a porous body sheet for refluxing the condensable, liquid phase working fluid by a capillary pressure to an evaporating part of the container, in which a part of the container functioning as the evaporating part for evaporating the condensable, liquid phase working fluid by means of inputting heat from outside, and in which another part of the container functions as a condensing part for condensing a vapor of the condensed working fluid by means of radiating heat to the outside:

wherein the container is constructed to have a flat thin-shaped section comprising a top face and a bottom face;

wherein the porous body sheet is arranged on the bottom face of the container; ~~and~~

wherein a direct reflux flow passage has a flow cross-sectional area greater than that of a cavity formed in a wick, the direct reflux flow passage is formed from the condensing part to the evaporating part in the container and the direct reflux flow passage is formed between the porous body sheet and an inner face of the container where the porous body sheet is mounted; and

wherein the direct reflux flow passage is formed on the inner face of the container and the porous body sheet is mounted thereon to close an opening of the direct reflux passage.

2. (original): A heat pipe according to Claim 1, wherein the direct reflux flow passage includes a plurality of flow paths extending from the evaporating part to a plurality of portions on the side of the condensing part.

3. (previously presented): A heat pipe according to Claim 1, wherein the direct reflux flow passage includes a thin slit or thin slits formed on the surface of the porous body sheet.

4. (previously presented): A heat pipe according to Claim 2, wherein the direct reflux flow passage includes thin slits formed on the surface of the porous body sheet.

5. (previously presented): A heat pipe according to Claim 3, wherein a clearance between the thin slits in the width direction of the porous body sheet changes flexibly in accordance with the width of the porous body sheet

6. (canceled).

7. (previously presented): A heat pipe according to Claim 1, wherein the direct reflux flow passage comprises a concave slit formed on the surface of the porous body sheet disposed opposite to a concave slit formed on the inner face of the container.

8. (original): A heat pipe according to Claim 1, wherein a cross- sectional shape of the direct reflux flow passage is selected from the group consisting of a triangular shape, a circular shape, a trapezoidal shape, a semicircular shape, and a square shape.

9. (original): A heat pipe according to Claim 5, wherein a cross- sectional shape of the direct reflux flow passage is selected from the group consisting of a triangular shape, a circular shape, a trapezoidal shape, a semicircular shape, and a square shape.

10. (original): A heat pipe according to Claim 1, wherein the encapsulating amount of the condensable liquid phase working fluid is governed by: (Volume of wick X porosity + predetermined value α).

11. (original): A heat pipe according to Claim 1, wherein the wick is composed of a porous sintered compact and its material is copper powder or ceramic powder.

12. (original): A heat pipe according to Claim 1, wherein a part of the container functions as an evaporating part for evaporating the condensable, liquid phase working fluid by means of an exothermic element contacted or joined to the evaporating part in a heat transmittable manner.

13. (original): A heat pipe according to Claim 1, wherein the direct reflux flow passage includes a plurality of flow paths extending from the plurality of portions of the condensing part side to the evaporating part.

14. (original): A heat pipe according to Claim 1, wherein a clearance between the plurality of flow paths on the evaporating part side is wider than that on the condensing part side in connection with that the width of the wick is wider on the evaporating part side, in order to arrange the reflux flow passages evenly in the width direction of the wick.

15. (original): A heat pipe according to Claim 1, wherein a dent is created in the liquid surface of the condensable liquid phase working fluid the portion corresponding to the reflux flow passage, and a vapor flow passage is secured therein.

16. (original): A heat pipe according to Claim 2, wherein dents are created in the liquid surface of the condensable liquid phase working fluid the portions corresponding to the plurality of flow paths of the reflux flow passage, and vapor flow passages are secured therein.

17. (original): A heat pipe according to Claim 1, wherein the inputted heat from outside to the evaporating part is 25 to 45 W (watt).

18. (previously presented): A heat pipe according to Claim 1, wherein a direct reflux flow passage has a flow resistance less than that of a cavity formed in a wick composed of a porous body sheet.